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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of

Robin J. Guthrie

Docket No.: C-2480

Serial No.: 10/816,403

Art Unit: 1795

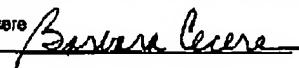
Filed: April 1, 2004

Examiner: Keith D. Walker

Title: Fuel Cell Reactant Flow Fields  
That Maximize Planform Utilization

I hereby certify that this correspondence is being facsimile  
transmitted to the United States Patent and Trademark Office  
(Fax No. 571-273-6300) on October 22, 2009.

Barbara Cecere



Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

REPLY BRIEF

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(2) TABLE OF AUTHORITIES

No authorities are relied upon herein.

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(4) STATEMENT OF ADDITIONAL FACTS

The Examiner's Answer beginning on page 9, (10) Response to Argument, continues to ignore substantial portions of claim 1. If all of claim 1 is considered, all of the Examiner's reasoning is clearly wrong and irrelevant.

(5) ARGUMENT

Examiner's Answer, page 9

[Reference to line numbers in claims refer to the CLAIMS in the APPENDIX of the APPEAL BRIEF].

The Examiner's argument beginning on page 9 does not take into account the language of claim 1. In claim 1, line 2, "grooves forming reactant gas flow channels"; in lines 8 and 9, "each of said channels having a transverse portion extending substantially transversely of said longitudinal direction"; in line 13 "some, but less than all of said transverse portions having more than one groove." Line 13 must be treated as if it said "said transverse portions of said channels"; there are no other "transverse portions". The Examiner does not take into account the fact that for Fujii to anticipate claim 1, each of the six channels formed by the grooves 40a, 40b, 40c, 40d,

40e, 40f must have a transverse section and, in that transverse section, "some but less than all" of the channels must have more than one groove. In fact, Fujii is opposite to claim 1, in that Fujii has two channels 44e, 44f sharing one groove 94 and has three channels 44a, 44b, 44c sharing one groove 92. Reading the entire language of claim 1, Fujii is totally irrelevant.

Examiner's Answer, page 10

In the top paragraph of page 10, the Examiner attacks the Declaration of Jeffrey Lake as providing no supporting evidence and only amounting to arguments without any other evidence or explanation. Nothing could be further from the truth. The Declaration is a "column, line, Fig. and reference numeral" explanation of what is shown in Fujii, a U.S. Government document.

Examiner's Answer, page 10

In the last paragraph on page 10, concerning the rejection as anticipated by Yamamoto, particularly with respect to the Examiner's diagram on page 11, it is again clear that the Examiner is rejecting one phrase and not the entire claim. Claim 1 (line 3) requires

"grooves forming reactant gas flow channels...." The channels (lines 4-6) "having inlet ends and outlet ends for conducting reactant gas along a longitudinal flow direction extending between said inlet ends and said outlet ends...." In the middle of the second paragraph of claim 1 (lines 11 and 12), "each of said channels having a transverse portion extending substantially transversely of said longitudinal direction." Even if Yamamoto's groove extending away from the inlet 51a and the groove extending into the outlet 51b were considered to be the "plurality of grooves forming reactant gas channels", then there is not "a transverse portion" for "each of said channels" to have. There is only one transverse portion, and not one for each channel. On the other hand, if the grooves 52, 54, 54' are considered "a plurality of grooves forming reactant gas flow channels", then none of them have transverse portions whatsoever. Claim 1, taken in its entirety, cannot be read on Yamamoto, Figure 5, and Yamamoto is therefore clearly irrelevant to claim 1.

Examiner's Answer, page 11

Concerning the rejection of claim 5, page 11, lines 7-9, as either anticipated by or obvious over Fujii, the Examiner is wrong in

stating "appellant does not explain why Fujii does not teach this ratio."

The Examiner, again, does not apply references to the language of the claims. Any anticipation of claim 5 has to include the language of claim 1. In page 7 of the Appeal Brief, responding to this rejection, applicant pointed out the simple truth, that the language of claim 5 (depending on claim 1) requires that the ratio of grooves to channels must always be greater than one because "some, but less than all of said transverse portions having more than one groove" (claim 1, last 2 lines). In the original rejection, the Examiner concluded that the aspect ratio was .41 and alleged that is about the same as his erroneous ratio of 1. Less than half is "not about the same". The reasoning is too obtuse to countermand in detail.

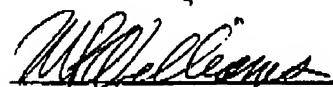
Examiner's Answer, page 11

Concerning the rejection of claim 5, page 11, line 7 through page 12, line 3, as anticipated by or obvious over Fujii, it is incredible that the Examiner has interpreted the channels and the grooves to mean the same thing; to be the same word in claim 1. Line 3 of claim 1, "grooves forming reactant gas flow channels", claim 1, line 11, "each of said channels having a transverse portion" and claim 1, in

the last two lines, "some, but less than all of said transverse portions having more than one groove." The language is perfectly clear; it appears that the rejection reflects bending the claim to fit the art, rather than applying the entire claim, fairly, to the art.

The Examiner never applied claim 1/claim 5 to any of the cited art.

Respectfully submitted,



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